

# **Electronic correlations in magnetic heterostructures**

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Heterostructures that contain semiconducting and magnetic monolayers offer the possibility to adjust simultaneously band-gap and magnetic properties. Dynamical Mean Field Theory is a necessary theoretical tool to address physical properties of multilayer systems containing correlated electrons. Here we solve a simplified Hubbard model within DMFT using the recently developed CT-QMC solver, for several magnetic monolayers embedded into semiconducting/insulating host. Our approach is relevant for the Cr/Mn-doped semiconducting heterostructures. We discuss possible half-metallic properties in these systems in the presence of dynamic correlations at finite temperatures.